

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY


(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

REC'D 03 OCT 2005

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| Applicant's or agent's file reference xxx | FOR FURTHER ACTION | | See Form PCT/PEA/416 |
| International application No. PCT/PL2004/000089 | International filing date (day/month/year) 29.10.2004 | Priority date (day/month/year) 30.10.2003 | |
| International Patent Classification (IPC) or national classification and IPC F16B21/08, F16B19/00, F16B15/06 | | | |
| Applicant WESOLOWSKA, Malgorzata | | | |
| <p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 6 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> sent to the applicant and to the International Bureau) a total of 14 sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p> | | | |
| <p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the opinion</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input checked="" type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input checked="" type="checkbox"/> Box No. VIII Certain observations on the international application</p> | | | |
| Date of submission of the demand 27.05.2005 | | Date of completion of this report 30.09.2005 | |
| Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465 | | Authorized Officer Huusom, C Telephone No. +49 89 2399-8867 | |



INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/PL2004/000089

Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
 - ☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
 - ☐ international search (under Rules 12.3 and 23.1(b))
 - ☐ publication of the international application (under Rule 12.4)
 - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

Description, Pages

1-7 received on 16.06.2005 with letter of 20.05.2005

Claims, Numbers

1-21 received on 16.06.2005 with letter of 20.05.2005

Drawings, Sheets

1/5-5/5 received on 16.06.2005 with letter of 20.05.2005

- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing
3. ☐ The amendments have resulted in the cancellation of:
 - ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing (*specify*):
 - ☐ any table(s) related to sequence listing (*specify*):
 4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
 - ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing (*specify*):
 - ☐ any table(s) related to sequence listing (*specify*):

* If item 4 applies, some or all of these sheets may be marked "superseded."

**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/PL2004/000089

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

| | | |
|-------------------------------|-------------|---------------|
| Novelty (N) | Yes: Claims | 3,6,7,8-21 |
| | No: Claims | 1,2,4,5,18-20 |
| Inventive step (IS) | Yes: Claims | 10-21 |
| | No: Claims | 1-9 |
| Industrial applicability (IA) | Yes: Claims | 1-21 |
| | No: Claims | |

2. Citations and explanations (Rule 70.7):

see separate sheet

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

Re Item V.

- 1 The following documents are referred to in this communication:

D1 : US 5 800 109 A (CARRUTHERS ET AL) 1 September 1998 (1998-09-01)
D2 : US 5 306 098 A (LEWIS ET AL) 26 April 1994 (1994-04-26)
D3 : US 4 381 633 A (MACLEOD ET AL) 3 May 1983 (1983-05-03)
D4 : US 4 395 174 A (FREEMAN ET AL) 26 July 1983 (1983-07-26)
D5 : US 5 907 891 A (MEYER ET AL) 1 June 1999 (1999-06-01)
D6 : CH 678 649 A5 (VEREIGNIGTE DRAHTWERKE AG 1991-10-15)

2 INDEPENDENT CLAIM 1

- 2.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 is not new in the sense of Article 33(2) PCT.

Taking the comments below under VIII.2 into consideration claim 1 effectively claims
A fastening pin with a shank, to be inserted in prepared holes having

- the pin having flexible protrusions on a part of its shank
- the protrusions having an external diameter or dimension being greater than the diameter of the hole
- the protrusions being evenly distributed

Document D6, which is introduced according to the examiner knowledge obviously disclose such a fastening pin according to phrasing of claim 1, see e.g. Fig. 13.

3 INDEPENDENT CLAIMS 10 and 18

Basically independent claims 10 and 18 differ from claim 1 in that

- a flexible neck is provided between a head and the shank
- the flexible protrusions are spade-shaped
- the elastic protrusions of the pin extend approximately 2/3 of the shank from the tip and in that
- a part of the shank near the head is provided with axially extending stabilizing fins or

splines on the surface of the shank.

Having the comments under VIII.1 in mind, and following a proper redrafting of the claims, it seems that a single independent claim comprising these features could potentially be able to meet the criteria of Art. 33(2) and (3) PCT in view of the presently available prior art documents on file.

Re Item VII.

1. The amended and preferable single independent claim should be in the two-part form in accordance with Rule 6.3(b) PCT, which in the present case would be appropriate, with those features known in combination from the closest prior art (one of D1-D6 or any even more pertinent document known to the applicant) being placed in the preamble (Rule 6.3(b)(I) PCT) depending on the drafting of the claim and with the remaining features being included in the characterising part (Rule 6.3(b)(ii) PCT).
2. Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the document D6 is not mentioned in the description, nor is this document identified therein.

Re Item VIII.

1. The various definitions of the invention given in independent claims 1, 10 and 18 of overlapping scope are such that the claims as a whole are not clear and concise, so that the requirements of Article 6 PCT and Rule 6.1(a) is not met. The claims should be recast to include only the minimum necessary number of independent claims in any one category, with dependent claims as appropriate (Rule 6.4 (a) PCT). In the present case it is considered appropriate to use only one independent claim in any category.

2. The wording of amended claim 1 is not clear.

It is assumed that the wording "the portion with the protrusion is homogenous" basically means that the protrusions are evenly distributed over a portion of the shank.

The meaning of the phrasing "the protrusion axis of the symmetry is situated in the plane of the symmetry of the shank" cannot be understood.

It is not clear what is meant with the "plane of the symmetry of the shank".

It is assumed that a plane orthogonal or perpendicular to the axis of the shank forming an angle of 90 degree with the axis is meant.

As the protrusions per se are not cylindrical but rather wedge shaped, no proper axis of symmetry for these protrusions can be formed.

Judging from the applicants arguments in letter of 20.05.2005 concerning the alleged advantages of the present application, in particular the "radially disposed" configuration of the "thorn-like" protrusions, the intention of claim 1 being basically to define:

- a pin having a shaft
- a part of the shaft provided with a plurality of evenly distributed flexible protrusions,
- the protrusions extending radially perpendicularly from the shaft.

Such a configuration introduce subject-matter which extends beyond the content of the application as filed, contrary to Article 34(2)(b) PCT.

According to the applicant this feature is supported by Fig. 1-3 and 17-20.

This cannot be accepted since the depicted protrusions obviously are inclined even in the free state in these figures. Also in the description and claims no support could be found for a 90 degree angle between the shaft and the protrusions, see e.g. last 2 lines of page 5 "Protrusions 2 are situated under an acute angle on the pins pin's longitudinal axis".

Moreover such a definition is in contradiction with claim 2 stating that the "protrusions are inclined".

This interpretation and conclusion was supported by a polish colleague after having viewed the polish priority documents.